REMARKS/ARGUMENTS

By this amendment claims 1 and 10 have been amended and claims 3-5 and 7 have been canceled. Accordingly, claims 1 and 10 are pending in the application. No new matter has been added.

In the prior Office Action, the Examiner rejected claims 1, 3, 7 and 10 under 35 U.S.C. §103(a) as being unpatentable over Ma (U.S. 2002/0005600 A1) in view of Hanna et al. (US 6,063,138). Inasmuch as the subject matter of claim 5 has been incorporated into claims 1 and 10, the rejection of such claims under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Hanna et al. has been overcome.

Also in the prior Office Action, the Examiner rejected claims 4 and 5 under 35 U.S.C. §103(a) as being unpatentable over Ma in view of Hanna et al. as applied to claim 1 further in view of Stalling et al. (US 5,198,115). As noted above, claims 4 and 5 have been canceled thereby rendering the prior rejection thereof moot. However, inasmuch as the subject matter of claim 5 has been incorporated into claims 1 and 10, applicant will respond to the Office Action as if claims 1 and 10 had been rejected in view of Ma, Hanna et al. and Stallings et al.

Ma discloses a method of forming 3-D biodegradable porous, polymer scaffolds with well-controlled, interconnected pores. In accordance with the method according to Ma, a composition comprising a porogen material is cast onto a negative replica of the desired macroporous architecture to form a cast body, and then the porogen material is removed from the cast body to obtain the 3-D porous scaffold. Supercritical fluids are not mentioned at all by Ma.

Hanna et al. discloses a method of forming particles of a substance that involves co-introducing into a particle formation vessel a supercritical fluid, a solution or suspension of the substance in a first vehicle, and a second vehicle that is both substantially miscible with the first vehicle and substantially soluble in the supercritical fluid. Thus, dispersion of the solution or suspension containing the substance in the first vehicle into the second vehicle occurs substantially simultaneously with extraction of the first and second vehicles by the supercritical fluid and substantially immediately upon

introduction of the fluids into the particle formation vessel. This results in the production of particles of the substance, which Hanna et al. never describes as porous.

Stalling et al. discloses an integrated supercritical fluid sample extraction and separation instrument. In accordance with the teachings of Stalling et al., a matrix to be analyzed for constituents of interest can be placed in a supercritical fluid extraction column. A supercritical fluid is then flowed through the column to extract constituents of the matrix. The extracted constituents leave the column with the supercritical fluid, where they are pumped into a collection vessel. The collection vessel contains a liquid solvent for the constituents. A pressure drop allows the supercritical fluid to vent away as a gas. The constituents remain dissolved in the solvent, where they can be analyzed via chromatographic means.

The Examiner contends that one having ordinary skill in the art would have found it obvious to cast a composition containing a porogen material as taught by Ma into the form of a particle and then contact the cast composite particle with a supercritical fluid to extract the porogen material and thus obtain a porous particle. The Examiner cites Stalling et al. as teaching a fluidized bed. Applicant respectfully submits that the Ma, Hanna et al. and Stalling et al. cannot be combined as suggested by the Examiner and even if so combined do not read on the method as claimed in claims 1 and 10.

The principle taught by Hanna et al. is the simultaneous dispersion of a solution or suspension of a substance in a first vehicle into a second vehicle and the extraction of both the first solvent and the second solvent by a supercritical fluid via a co-introduction nozzle resulting in the production of particles of the substance. Applicant respectfully submits that there is no obvious way to accommodate the teachings of Hanna et al. with those of Ma. Ma is directed to a different problem, namely the production of porous scaffolds, and thus does not translate well to the problem addressed by Hanna et al., namely the production of particles. If one takes the Examiner's contention that a person of ordinary skill in the art would cast particle-sized bodies containing a porogen material as taught by Ma, how would these cast particle-sized bodies then be processed using the teachings of Hanna et al.? If one were to disperse the cast particle-sized bodies containing a porogen material as taught by Ma into a first vehicle, what would be the function of the second vehicle that Hanna et al.

teaches should be cointroduced with the first vehicle/cast particle-size bodies suspsension and the supercritical fluid? Hanna et al. teaches this co-introduction to disperse the first vehicle into the second vehicle and then to extract both the first vehicle and the second vehicle into the supercritical fluid. What would one hope to accomplish by doing this since the composite particles were already formed by a casting process according to Ma?

It is even more difficult to try to further incorporate the teachings of Stalling et al. with those of Ma and Hanna et al. Stalling teaches contacting a matrix material on a column with a supercritical fluid, which extracts constituents from the column and then deposits them in a solvent. How can one both co-introduce a suspension of cast particle-size composite particles suspended in a first vehicle, a supercritical fluid and a second vehicle simultaneously together in a reaction vessel while at the same time passing a supercritical fluid through a matrix material? What is the matrix material in this instance? The three references simply cannot be combined in any obvious manner to achieve a known or expected result.

In order to further differentiate applicant's invention from the prior art cited by the Examiner, applicant has amended claims 1 and 10. Claim 1 now specifies that the composite particles are dispersed in an aqueous suspension, and that supercritical carbon dioxide is bubbled through the aqueous suspension to extract the second material from the composite particles to obtain an aqueous suspension of porous particles. Similarly, claim 10 specifies that a supercritical fluid is bubbled through a suspension of composite particles to extract one of the constituents of the composite particles and thus form a suspension of porous particles in a solvent that is not soluble in the supercritical fluid. This is simply not taught or suggested by the prior art of record.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge the same to Deposit Account No. 18-0160, Order No. FER-15618.001.001.

Respectfully submitted,

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